



# **Atlantic Bluefin Tuna Management & the Pelagic Longline Fishery**

## **2015: A Year of Transition**

**HMS Advisory Panel Meeting;  
March 2016**



## Some Amendment 7 (A7) Objectives

- Prevent overfishing and rebuild western Atlantic bluefin tuna, minimize bluefin bycatch, and continue to operate within the TAC set by ICCAT
- Optimize harvest of bluefin quota
- Reduce dead discards of bluefin tuna
- Enhance reporting and monitoring



## Summary of A7 BFT Measures

- Allocation measures affecting all quota categories
- Pelagic Longline fishery changes
  - Gear Restricted Areas (Cape Hatteras and Gulf of Mexico)
  - IBQ Program
  - Electronic Monitoring
  - Vessel Monitoring System Reporting
- Online reporting for commercial handgear categories
- Adjustments to General and Angling category quota management, Harpoon retention limit, Purse Seine fishery start date



## **2015: A Year of Transition**

- A7 effective in 3 phases
  - January 1, 2015 – most measures
  - June 1, 2015 – electronic monitoring requirements for PLL vessels (i.e., video cameras, etc.)
  - January 1, 2016 – Trip level accountability in the Individual Bluefin Quota (IBQ) program
- U.S. baseline BFT quota increased by 135 mt to 1,058.79 mt
- Numerous inseason actions for BFT fisheries  
(discussed in other presentation)



## **IBQ Eligibility Appeals and A7 Litigation**

### **Initial Administrative Decisions and Formal Appeals**

- 13 requests for reconsideration of IBQ share and GRA access submitted by vessel owners
  - 1 initial Administrative Decision approved (eligibility of permit) and 12 denied
  - 3 vessel owners filed formal appeals with the National Appeals Office; Initial administrative decisions upheld

### **Litigation**

- Willie R. Etheridge Seafood Co. et al v. Pritzker
  - Alleged Agency violated Magnuson-Stevens Act, National Environmental Policy Act, and Administrative Procedure Act
  - Court granted summary judgment for NMFS on March 21



## **IBQ Rules Effective in 2015, 2016**

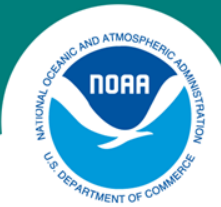
All BFT retained or discarded dead must be accounted in the online IBQ system

### 2015

- No minimum amount of quota to fish, and can fish with 'quota debt' but quota debt accrues
- Accountable at the end of the year (i.e., any remaining quota debt deducted from 2016 allocation)

### New for 2016

- Minimum amount of quota required to depart on a fishing trip (276 lb in Atlantic; 551 lb in Gulf of Mexico)
- Cannot depart on a subsequent trip if there is quota debt or less than the minimum amount required



## Electronic Monitoring (EM) Program Status

Installations: 112 pelagic longline vessels out of 136 eligible (NMFS approved contractor: Saltwater, Inc.)

Hard drive submission: 2015

- Number of vessels submitting: 87
- Average # vessels submitting each month: 58
- Total hard drives submitted: 783
- Average # of hard drives submitted each month: 112



## **Electronic Monitoring (EM) Program Status**

### Examples of Technical Issues:

- “Serious” issues – very few: 7; (~ 2%, 5 cameras replaced; 2 control box issues)

### Typical troubleshooting issues:

- Power supply/electrical issues (e.g., voltage conditioner needed, cameras not detected, no power)
- Drum rotation sensor and hydraulic sensors (no data or invalid values due to need to reposition, or calibrate)
- Loose connections or camera coupler (e.g., no sensor reading)
- VHF Interference
- Vessel operator does not submit hard drive after each trip

- Average number of calls per months to Saltwater, Inc: 28
- Resolved remotely via telephone: 60%
- Resolved through a technician visit: 40%





## **Electronic Monitoring (EM) Sampling Plan for Auditing of Video**

### Sample design based on logbook and observer data (2011-2014)

- Sample every vessel; Sample approx. 10% of trips
- Stratified by geographic areas and seasons to account for patterns in distribution (e.g., bluefin occur in approx. 15% of sets in Gulf of Mexico from Jan. to Jun. and 0% from Jul. to Dec.)
- Sample among vessels proportional to fishing effort
- Two stage selection; select trips within a location-season strata, then select set from those trips
- Video review: Quality control, then detailed review
  - Technician finds fish in the video, counts and IDs
  - Software being developed to isolate relevant images (i.e., fish) to reduce video review time



## **Electronic Monitoring (EM) Program Status**

### Audit Summary:

Period 1: June – Aug 2015: 124 sets from 42 vessels audited (video reviewed);  
Representing ~7% of total sets and ~18% of trips

- 8 sets audited (of 124) recorded bluefin interactions (~ 6% of sets)

Period 2: Sept – Nov 2015: 68 sets from 25 vessels audited; Representing ~ 5% of  
total sets and ~ 11% of trips

- 8 sets audited (of 68) recorded bluefin interactions (~12% of sets)
- Currently comparing audited EM data to observer data, VMS data, & dealer data

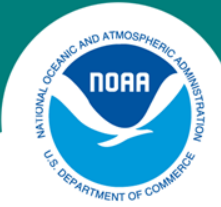


## **So How is it Going?**

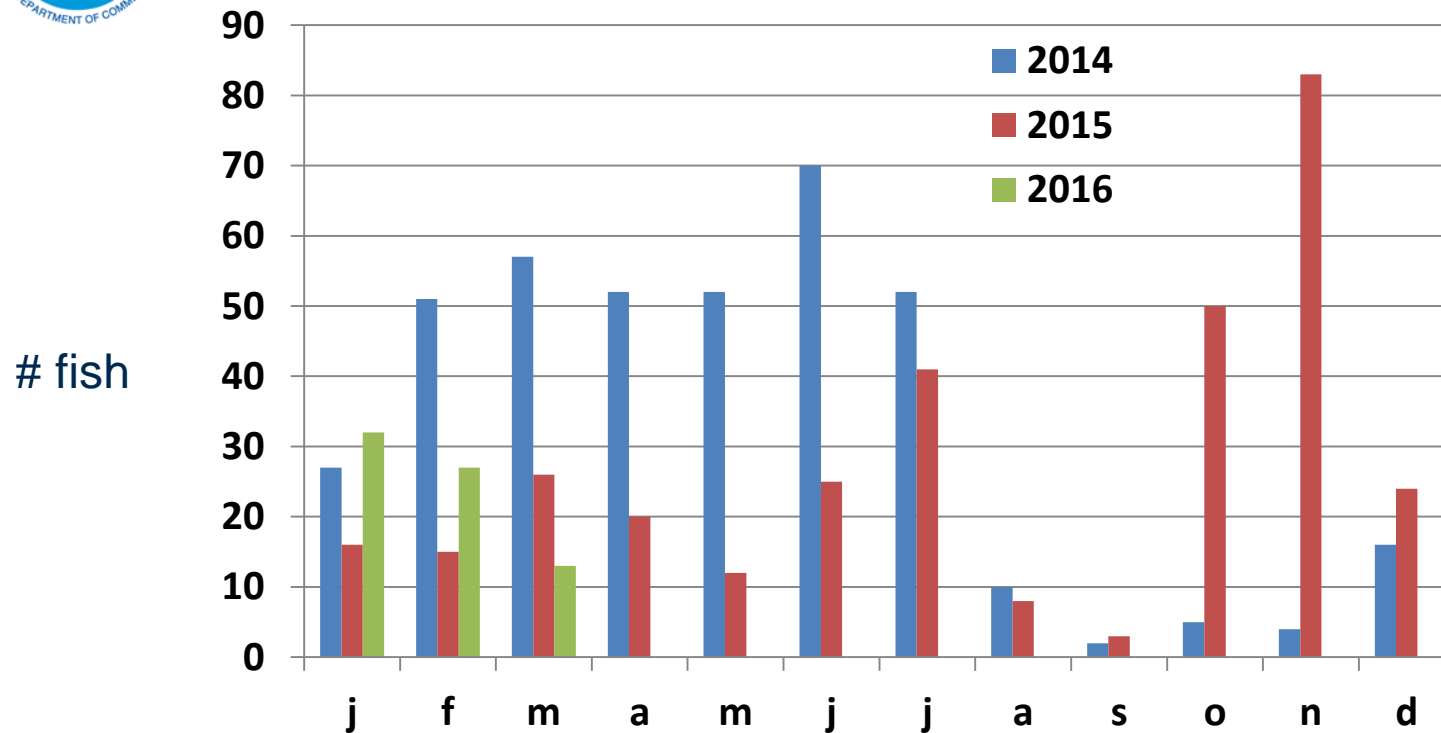
- 2015: A year of transition
- Vessel operators are adapting to the new requirements, but there are concerns about the big picture
- Adapting to new gear restricted areas, the IBQ program, and electronic monitoring
- Lots of preliminary data



# **2015 Pelagic Longline Fishery Data**



## Bluefin Landings by PLL by month 2014 – 2016\*

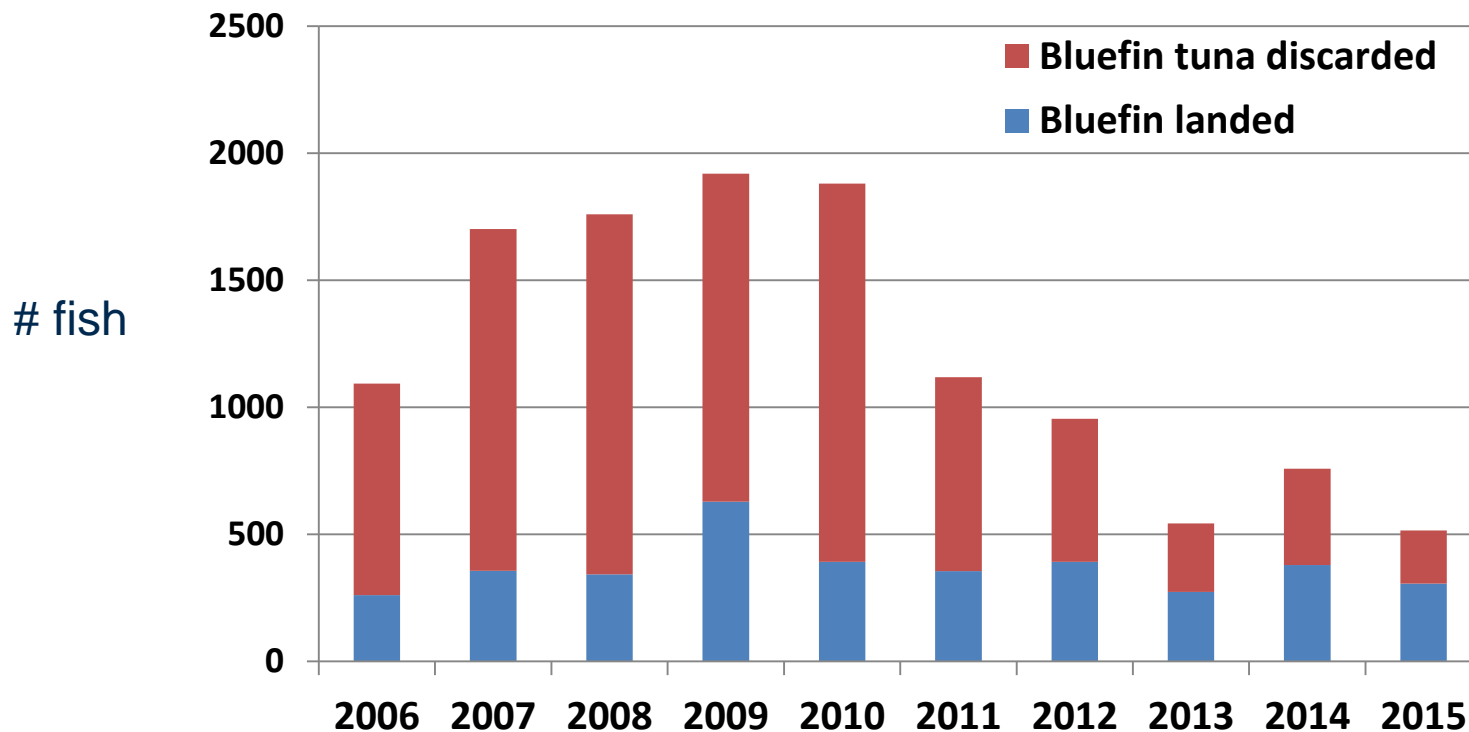


*The pattern of bluefin landings by month is similar during 2014 and 2015, with the exception of October and November*

Source: Dealer Data (\*through 3/15/2016) Includes NED (Northeast Distant Area)

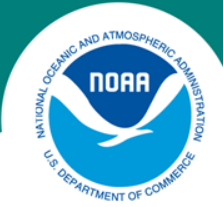


## Landings and Total Discards of Bluefin 2006 to 2015\*

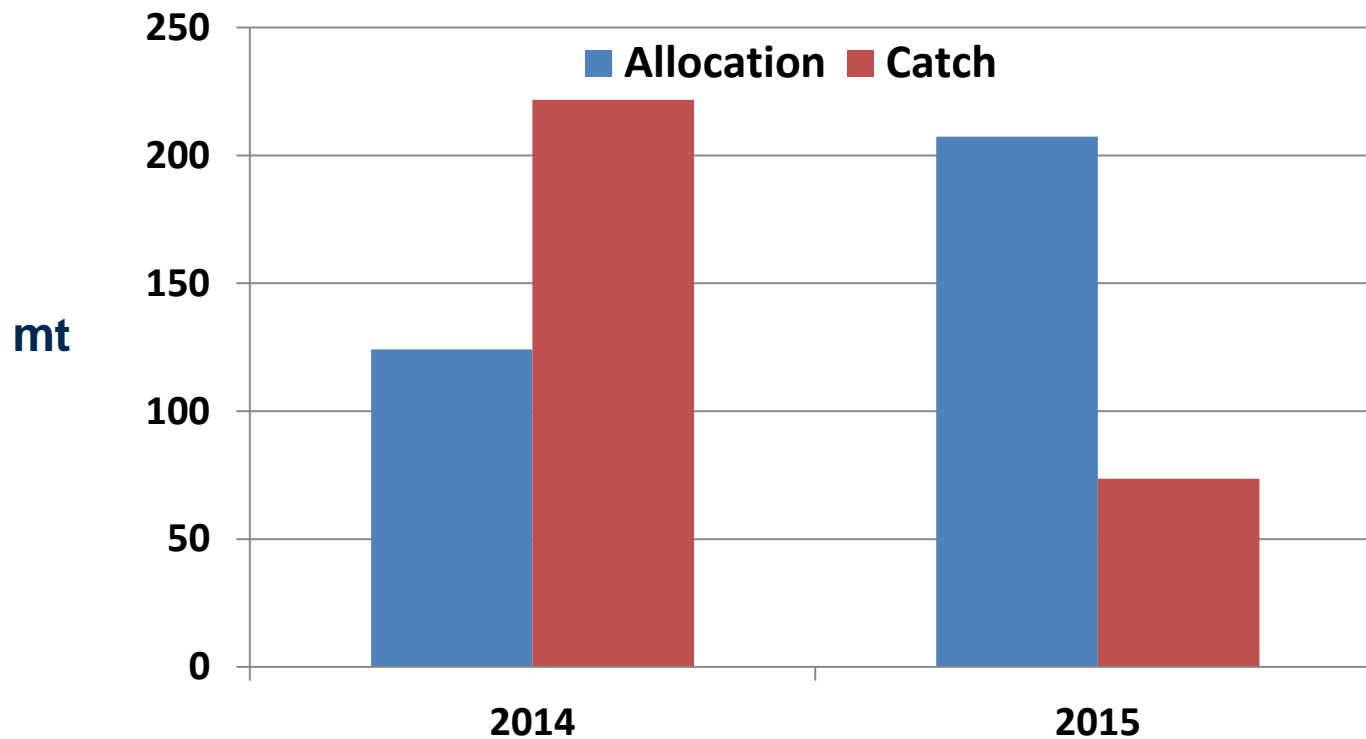


*Bluefin landings have been fairly consistent, dead discards declined since 2010*

Source: Logbook Data; \*Preliminary



## Total PLL Allocation vs Total Catch 2014, 2015\* (mt)

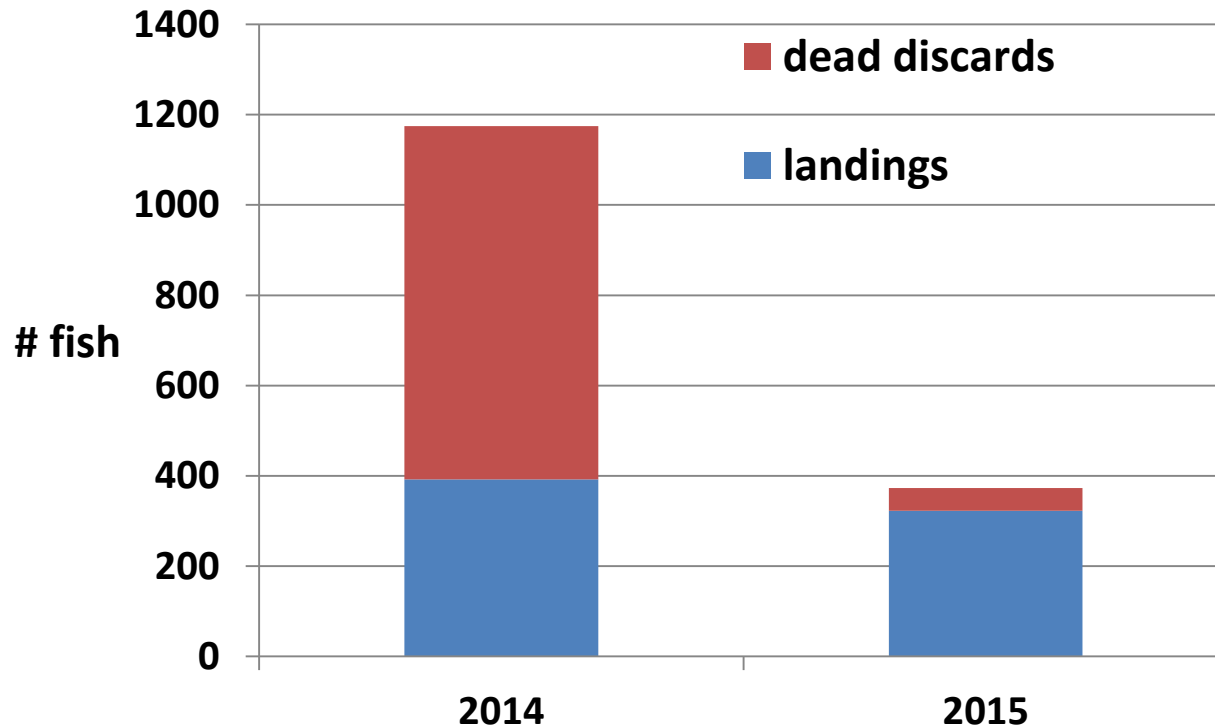


*From 2014 to 2015, longline allocation increased and bluefin catch decreased*

\*Preliminary data; (Sources: Dealer (landings), VMS (vessel-reported dead discards); includes NED (Northeast Distant Area))



## Bluefin Catch 2014, 2015\* (# fish), includes NED



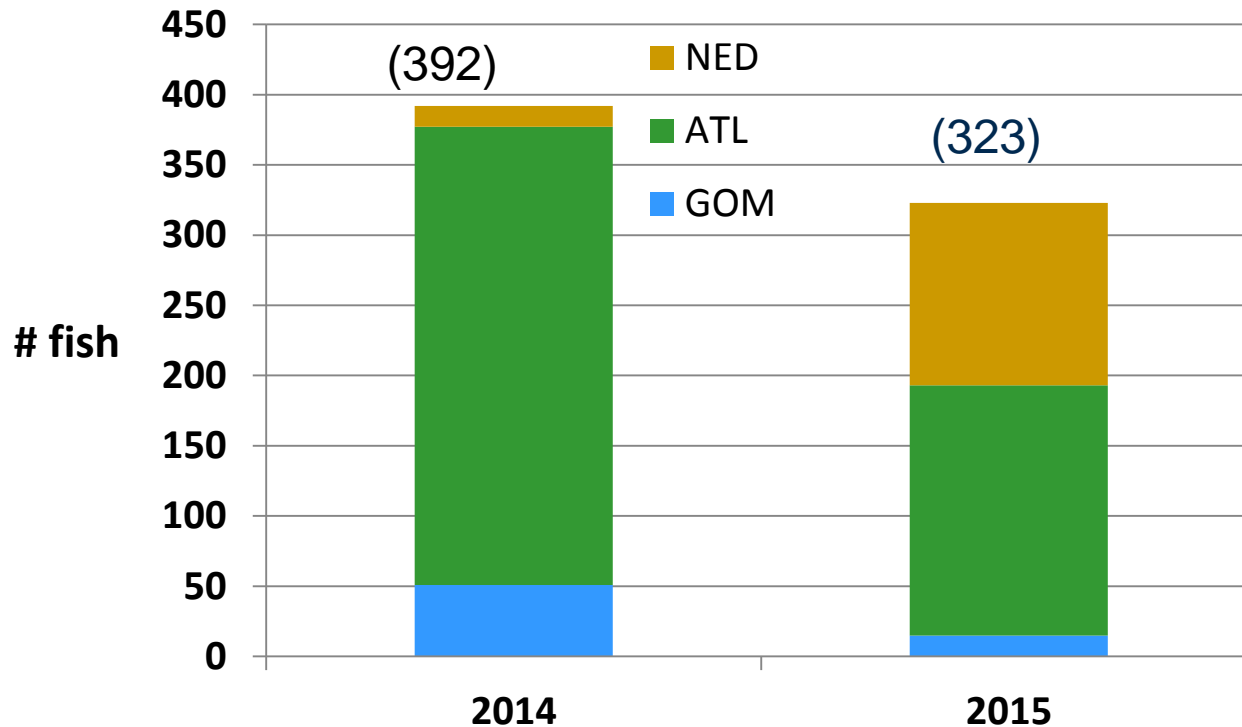
*From 2014 to 2015, bluefin landings declined slightly and dead discards declined more substantially (expressed as numbers of fish)*

\*Preliminary data; (Sources: Dealer (landings), VMS (vessel-reported dead discards); includes NED (Northeast Distant Area)); Dead discards likely underestimate actual level.





## Bluefin Landings by Area 2014, 2015 (# fish)

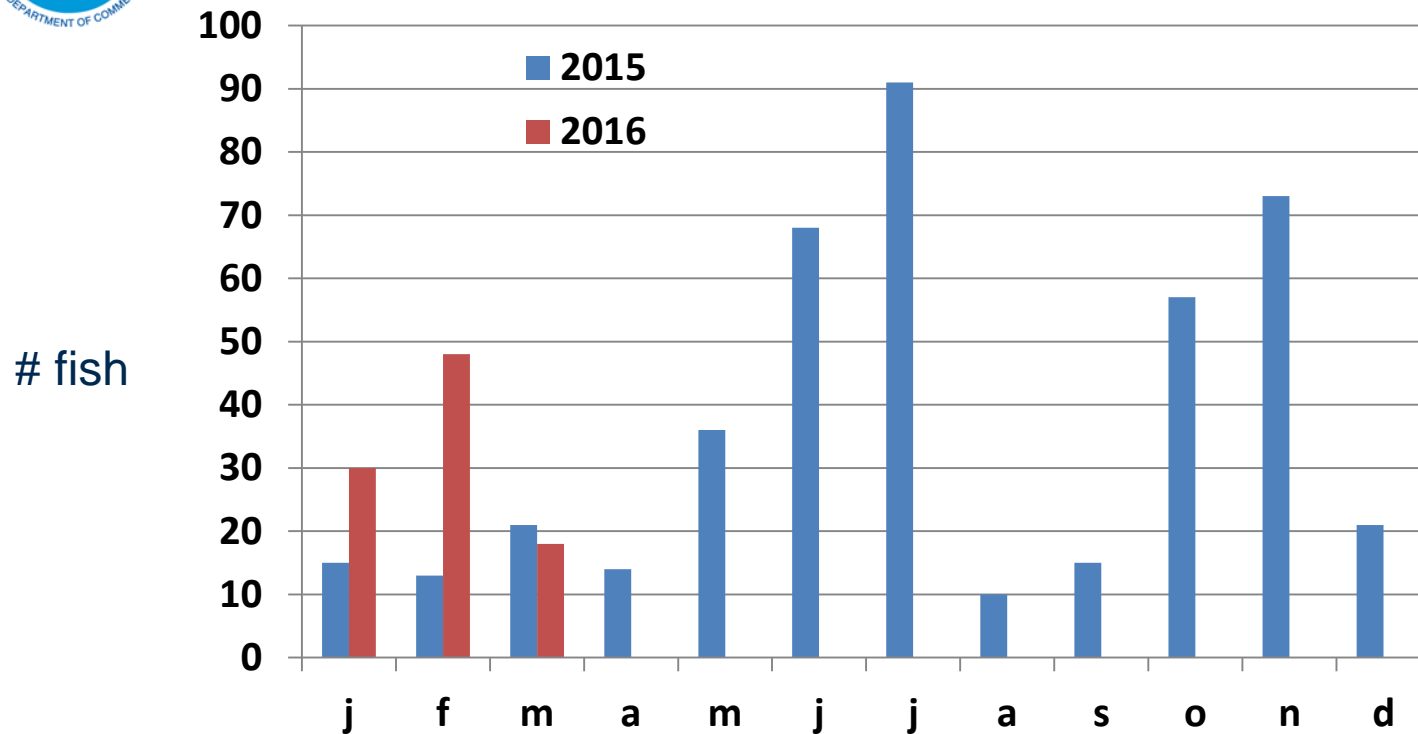


*From 2014 to 2015, bluefin landings decreased in the Gulf of Mexico and Atlantic, and increased in the NED*

Source: Dealer, VMS, IBQ data; includes NED (Northeast Distant Area)



## Bluefin Interactions by Month 2015, 2016\* (# fish)

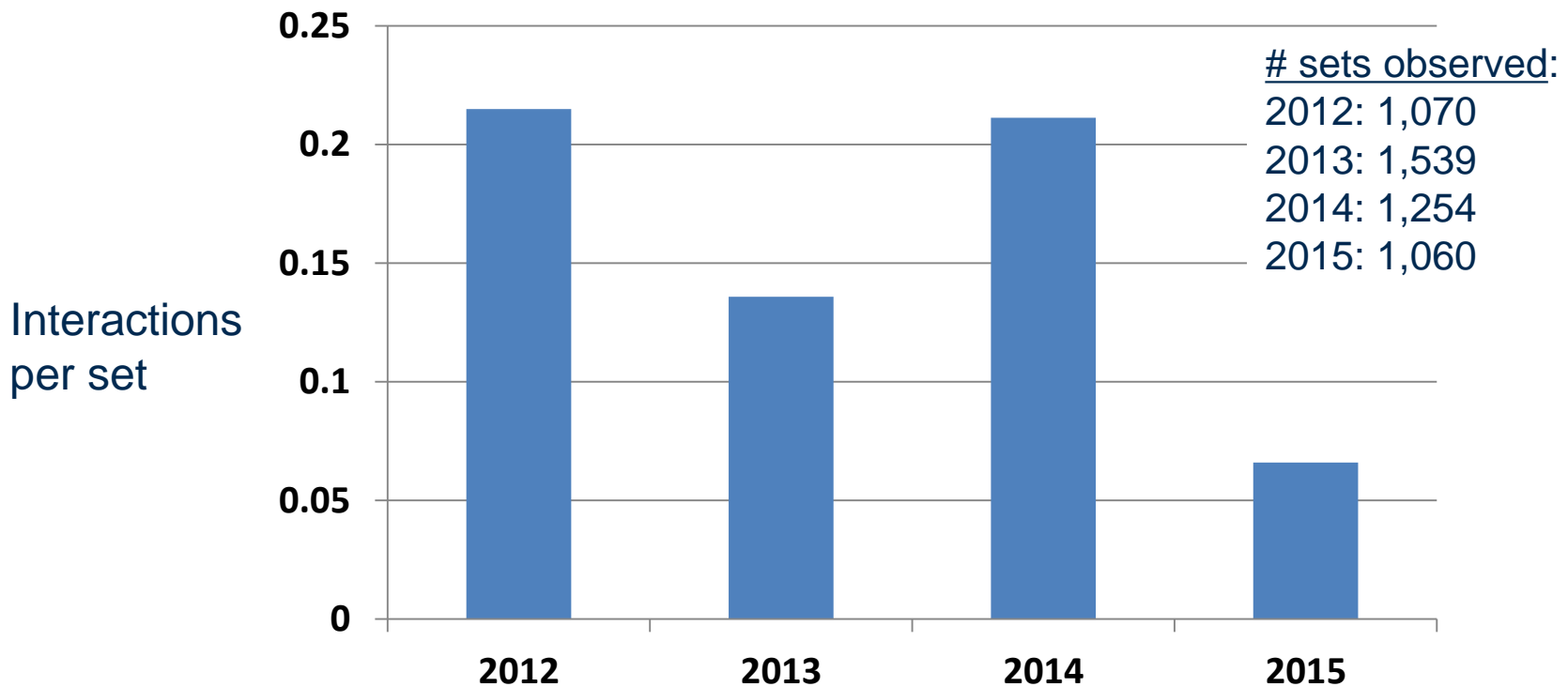


*The pattern of bluefin interactions by month during 2015 is similar to that of landings (from previous slide)*

Source: VMS bluefin catch reports (\*preliminary 2016 data through 3/15/2016)

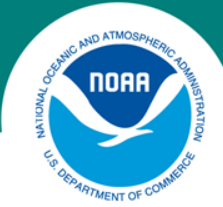


## # Bluefin Interactions per Observed PLL Set 2012 - 2015

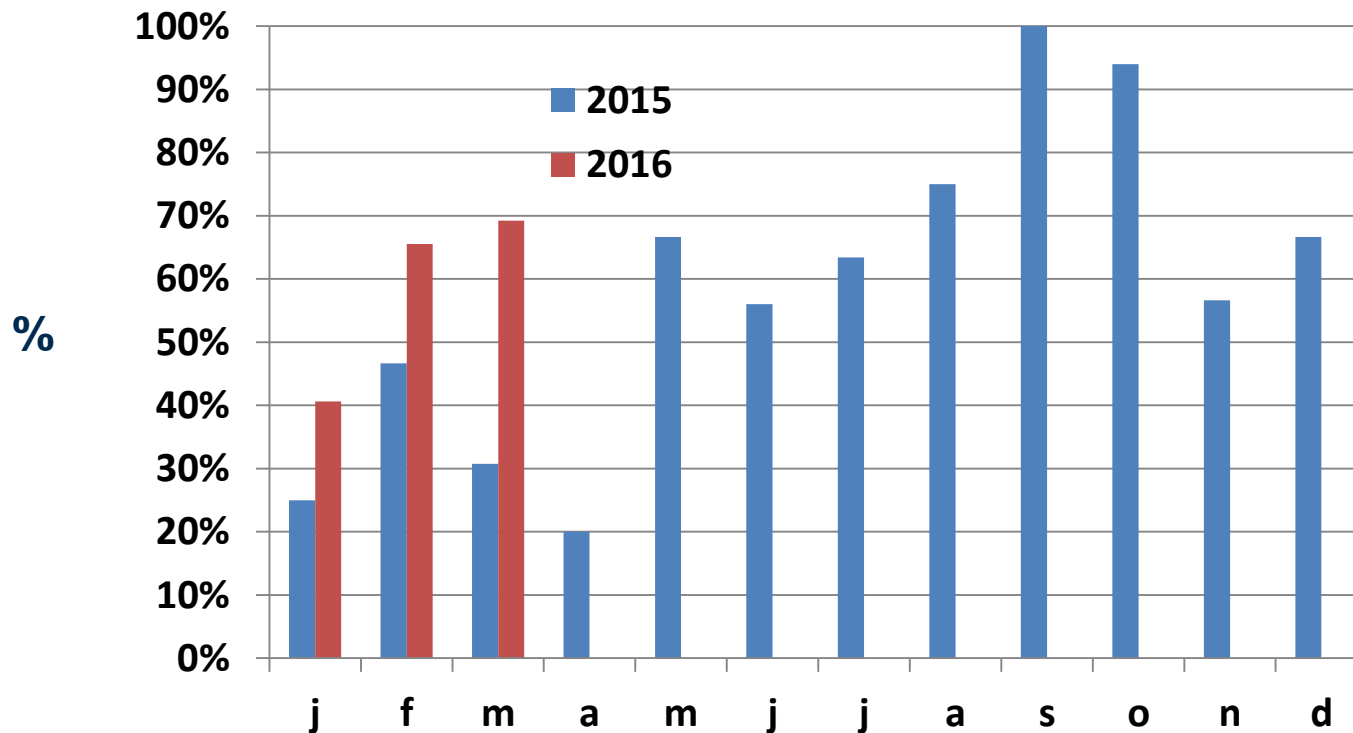


*# of bluefin interactions declined in 2015, based on observer data*

Source: Pelagic Observer Program (POP)



## Percentage of landed (dealer-reported) bluefin that were reported through VMS by month 2015

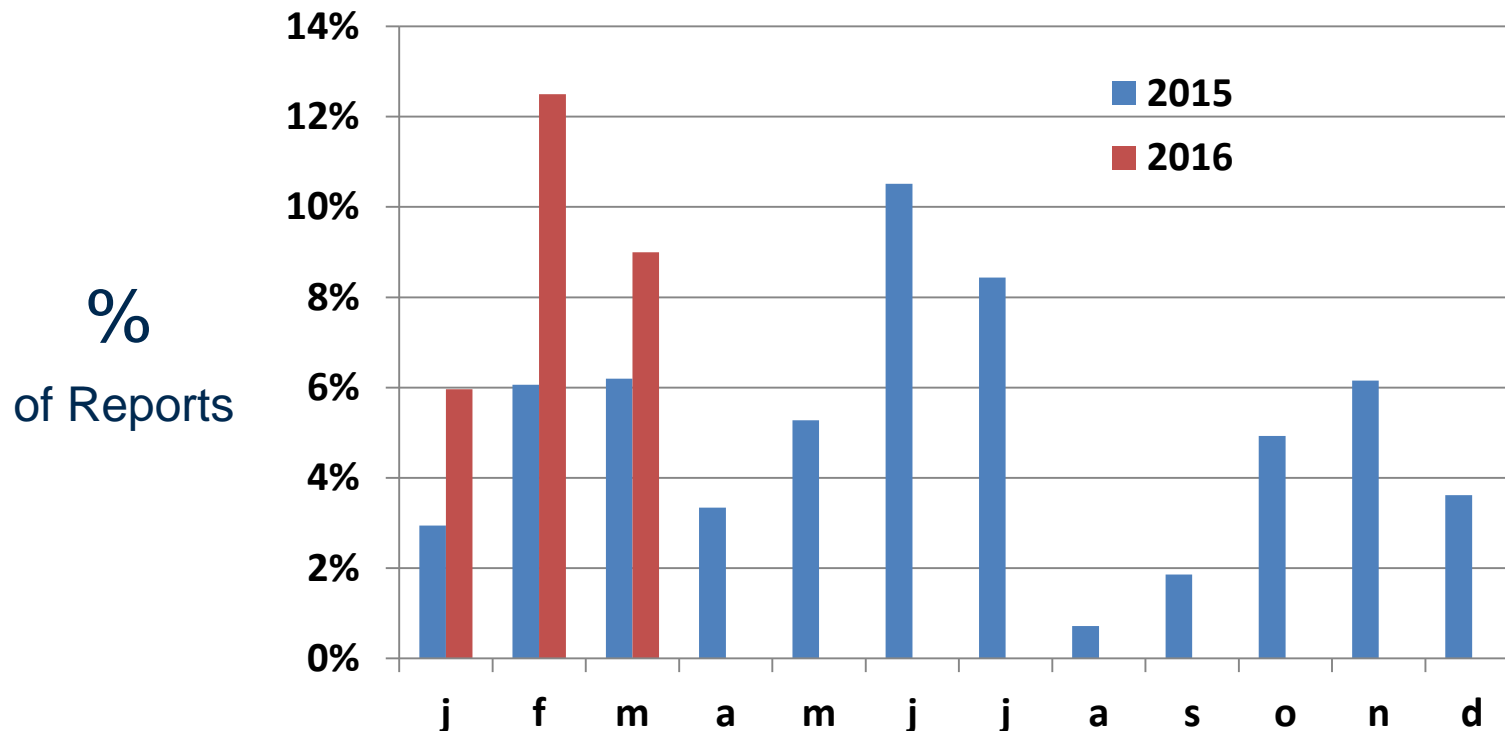


*Compliance with the VMS requirement to report bluefin retained may be improving*

Source: VMS bluefin catch reports (\*through 3/15/2016); total # VMS reports = 5,472 (2015) <sub>20</sub>



## VMS Reports Noting Interactions with Bluefin, by month 2015, 2016\*



*The percentage of VMS reports (sets) noting interactions with bluefin is within a low range*

Source: VMS bluefin catch reports (\* preliminary 2016 data through 3/15/2016)



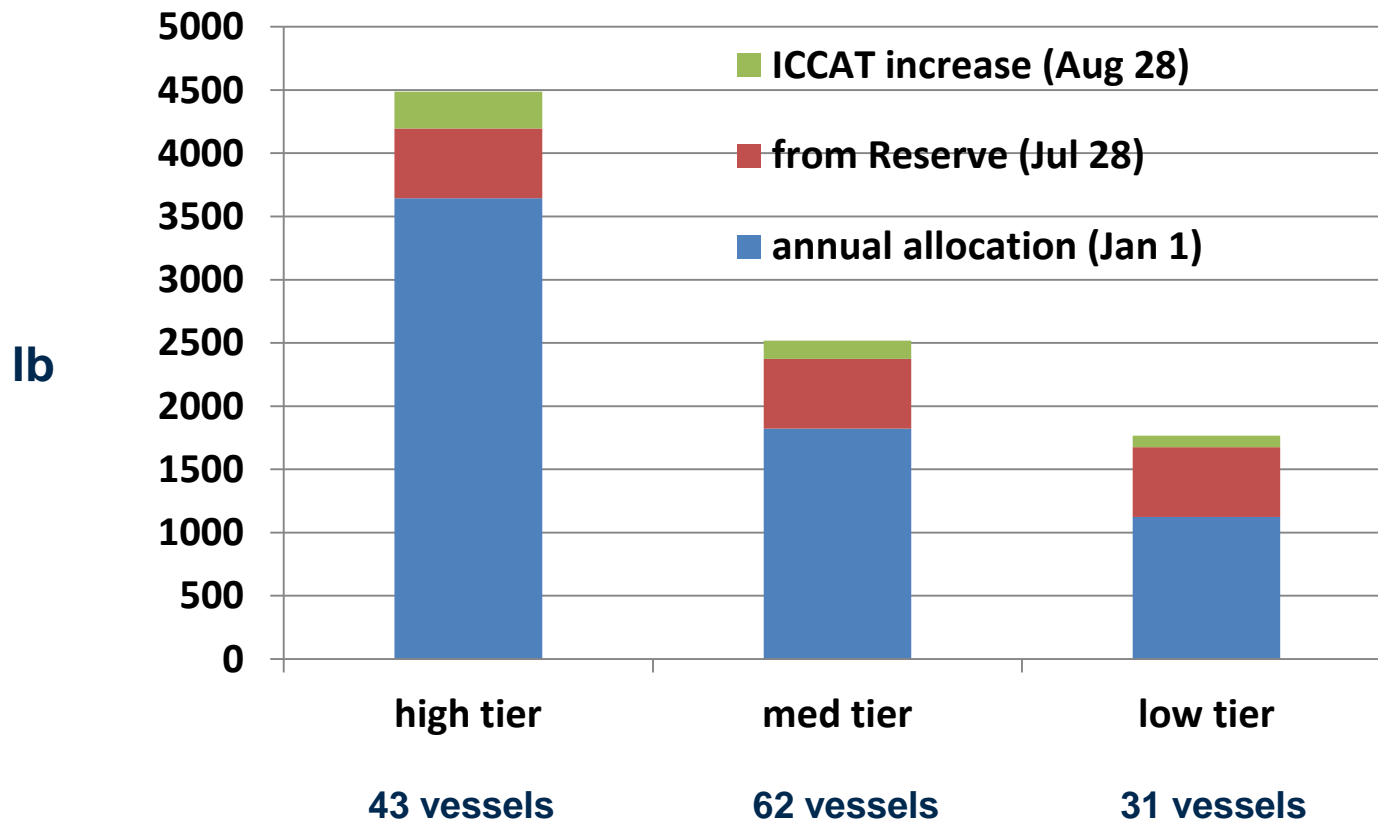
## Percent of PLL Sets with Bluefin Interactions

Data Source & Year		Percent of hauls indicating interactions with bluefin
Pelagic Observer Program; Observed longline hauls	2012	13% (140 out of 1,070)
	2013	10% (149 out of 1,539)
	2014	13% (157 out of 1,254)
	2015	4% (44 out of 1,060)
VMS Bluefin reports (2015) (corresponding to hauls)		5% (263 out of 5,472)

*In 2015, the percentage of sets with interactions appears to have declined*



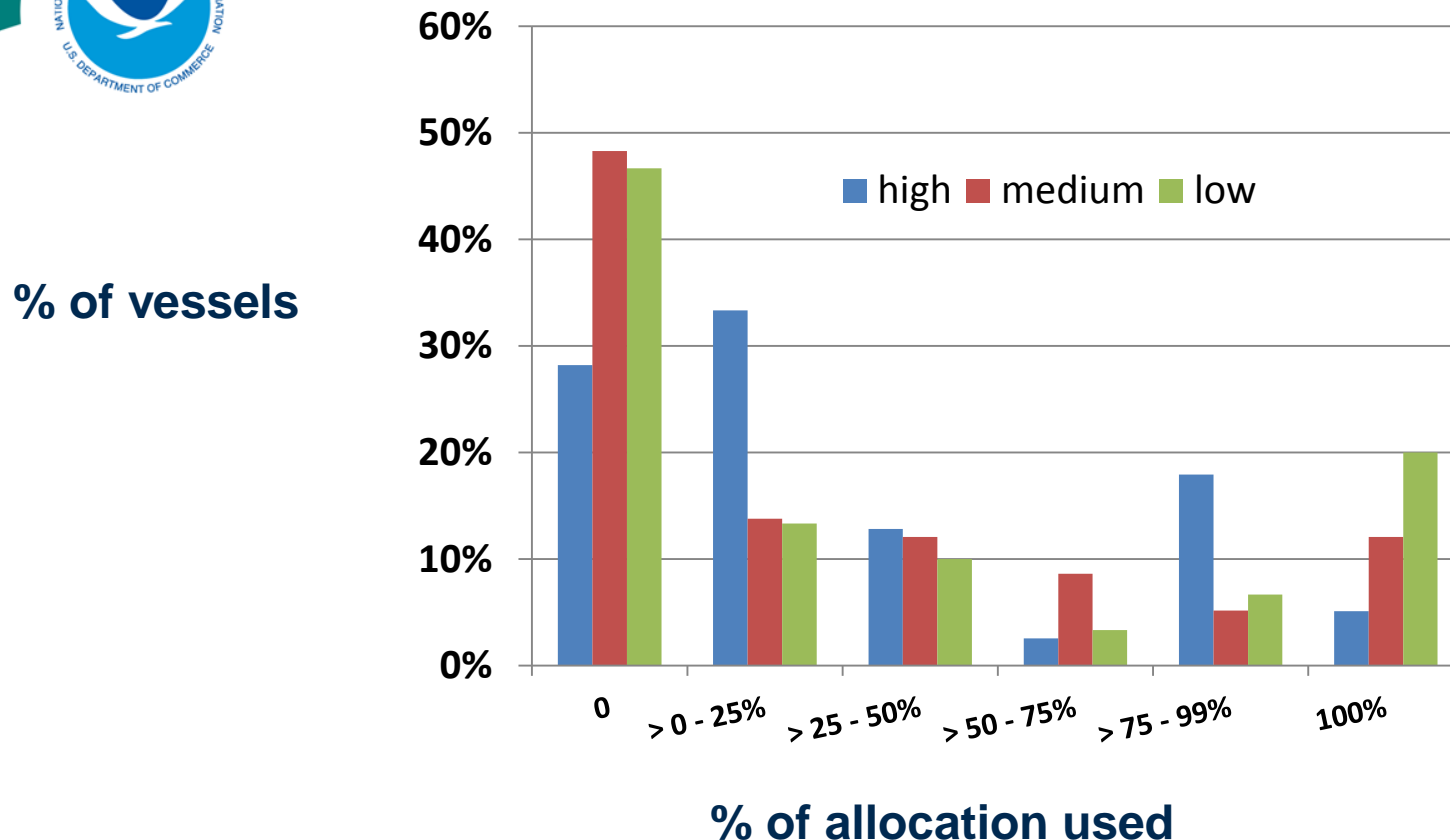
## Allocation of IBQ Quota in 2015, by tier



*There were 3 levels of IBQ quota allocation and 3 quota disbursements in 2015*



## IBQ use in 2015 by Allocation tier



*Most vessels used a low percentage of IBQ. Vessels with a high tier allocation tended to use more allocation.*

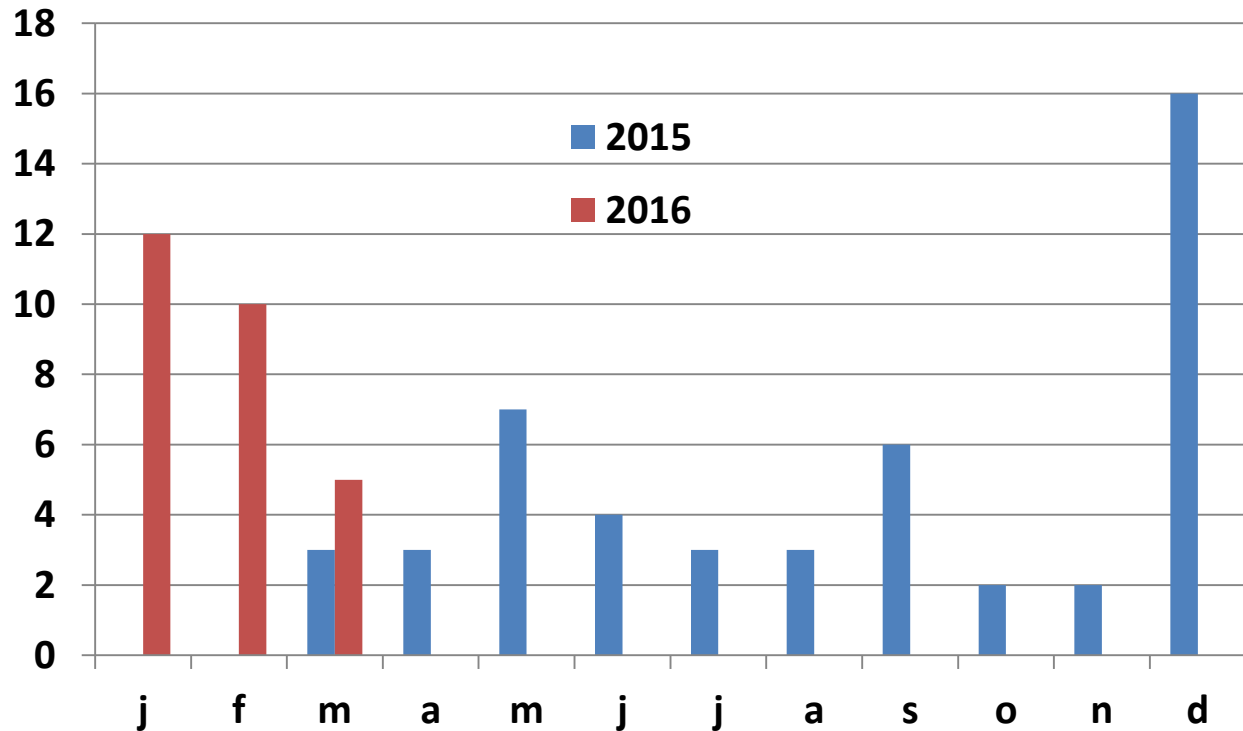
Source: IBQ system



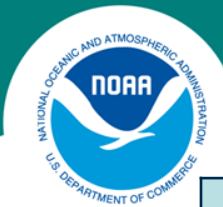


## IBQ Lease Transactions 1/1/15 - 3/15/16

#  
leases



*The number of IBQ leases in 2015 was consistent over time, with a large increase in December. The number of leases in 2016 is larger than in 2015.*

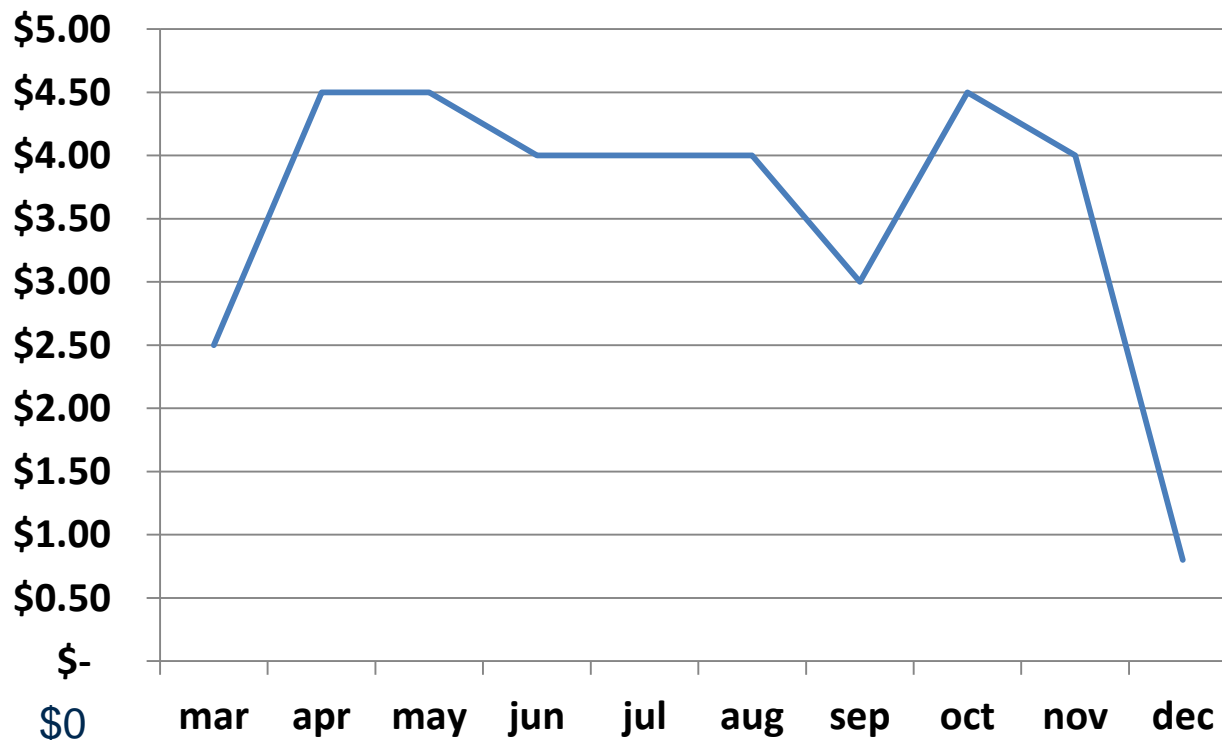


## **IBQ Leasing Summary 2015**

Metric	Amount
# IBQ Lease transactions between shareholders	49
# Different shareholders leasing	Longline: 15 Purse Seine: 4
Total Amount of IBQ leased	57.3 mt
Average amount of IBQ leased per transaction (not including 3 large Purse Seine transactions)	1,598 lb
Average amount IBQ leased in 3 large Purse Seine transactions (one to a PLL shareholder).	17,637 lb
Average Price per pound of IBQ leased (excluding outlier of one cent per pound)	\$ 3.12



## IBQ Leasing – Price per pound by month 2015



*The price per pound of leased IBQ in 2015 was fairly consistent, and declined late in the year. Overall the average lease price was about half of the ex-vessel price of bluefin (based on all permit category sales of bluefin)*



**PLL Trips by Area 2012 – 2015\* (and %  
change comparing 2015 to the average of 2012  
- 2014)**

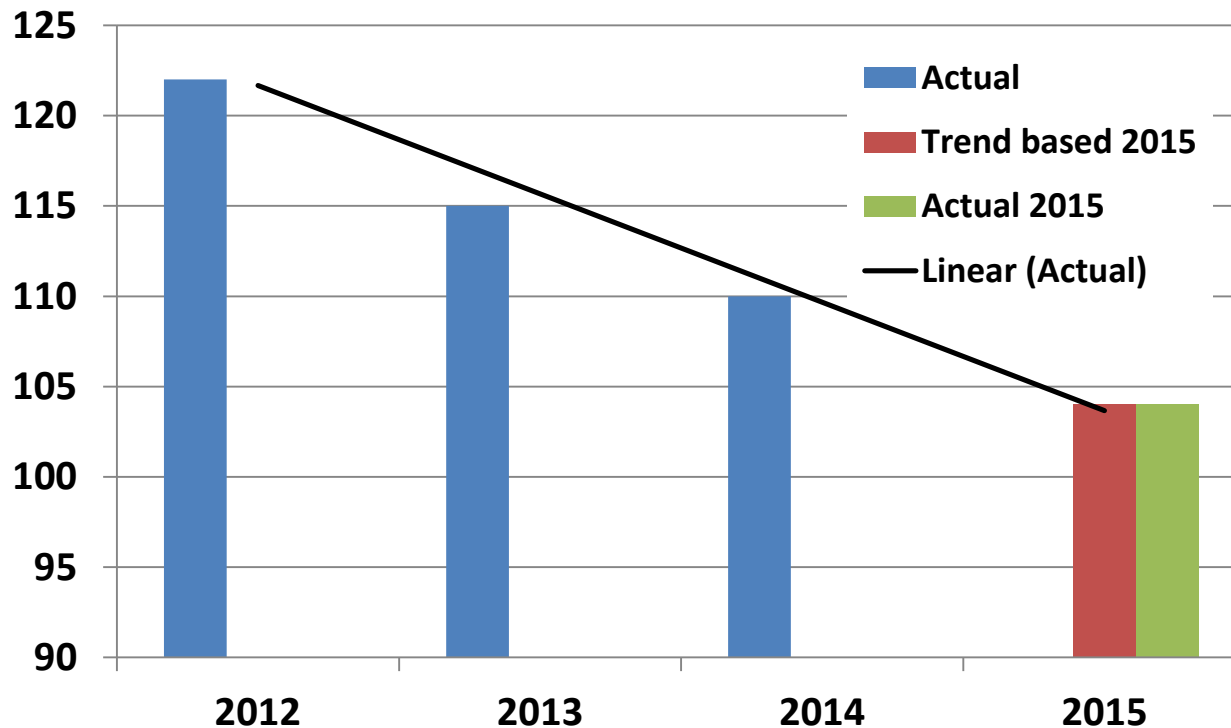
Area	2012	2013	2014	2015	% change
CAR	2	15	15	7	- 34 %
FEC	360	335	332	239	- 30 %
GOM	461	407	361	245	- 40 %
MAB	448	445	385	345	- 19 %
NCA	3	3	1	3	29 %
NEC	78	59	64	62	- 7%
NED	9	8	15	15	41 %
SAB	202	260	222	184	- 19%
SAR	7	5	12	12	50 %
SAT	22	21	15	12	- 38 %

Source: Logbook data; 2015 preliminary



## PLL Vessels Trend 2012 – 2014

#  
vessels



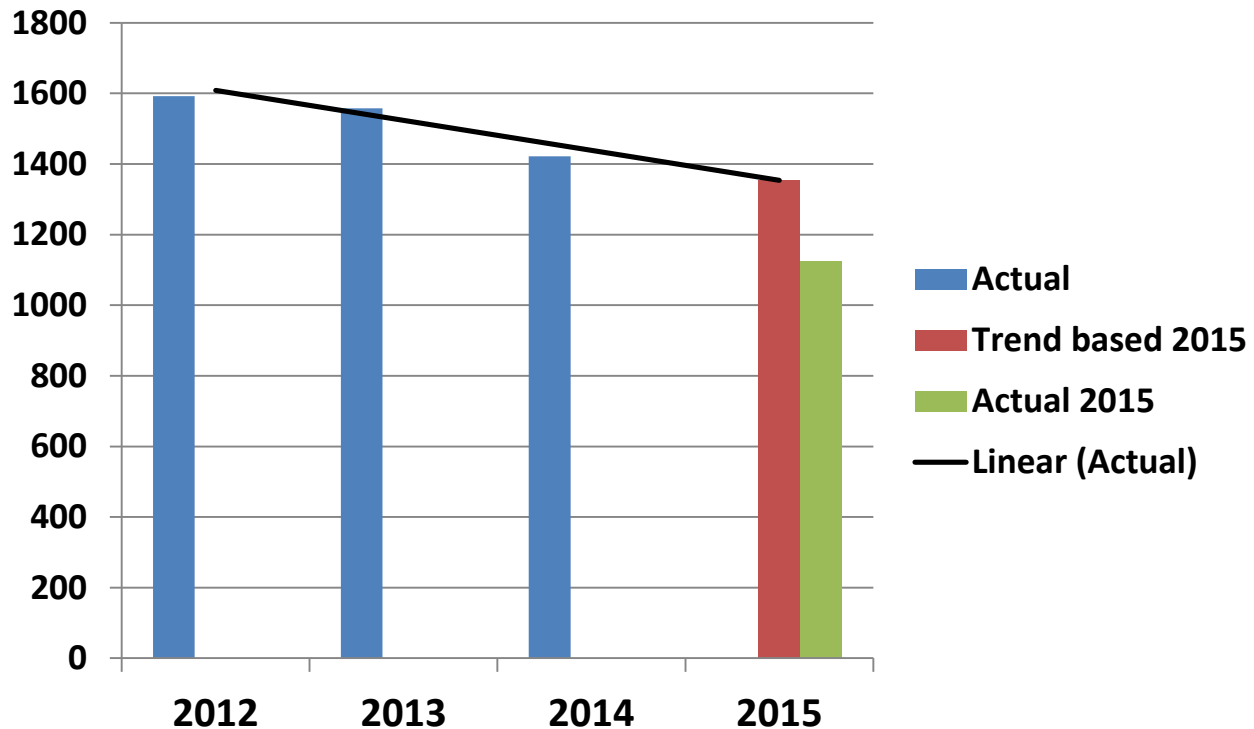
*The decline in the number of vessels in 2015 is consistent with the previous trend. Actual 2015 is same as the 2015 estimate based on previous trend.*

Source: Logbook Data



## PLL Trips Trend 2012 – 2014

# trips

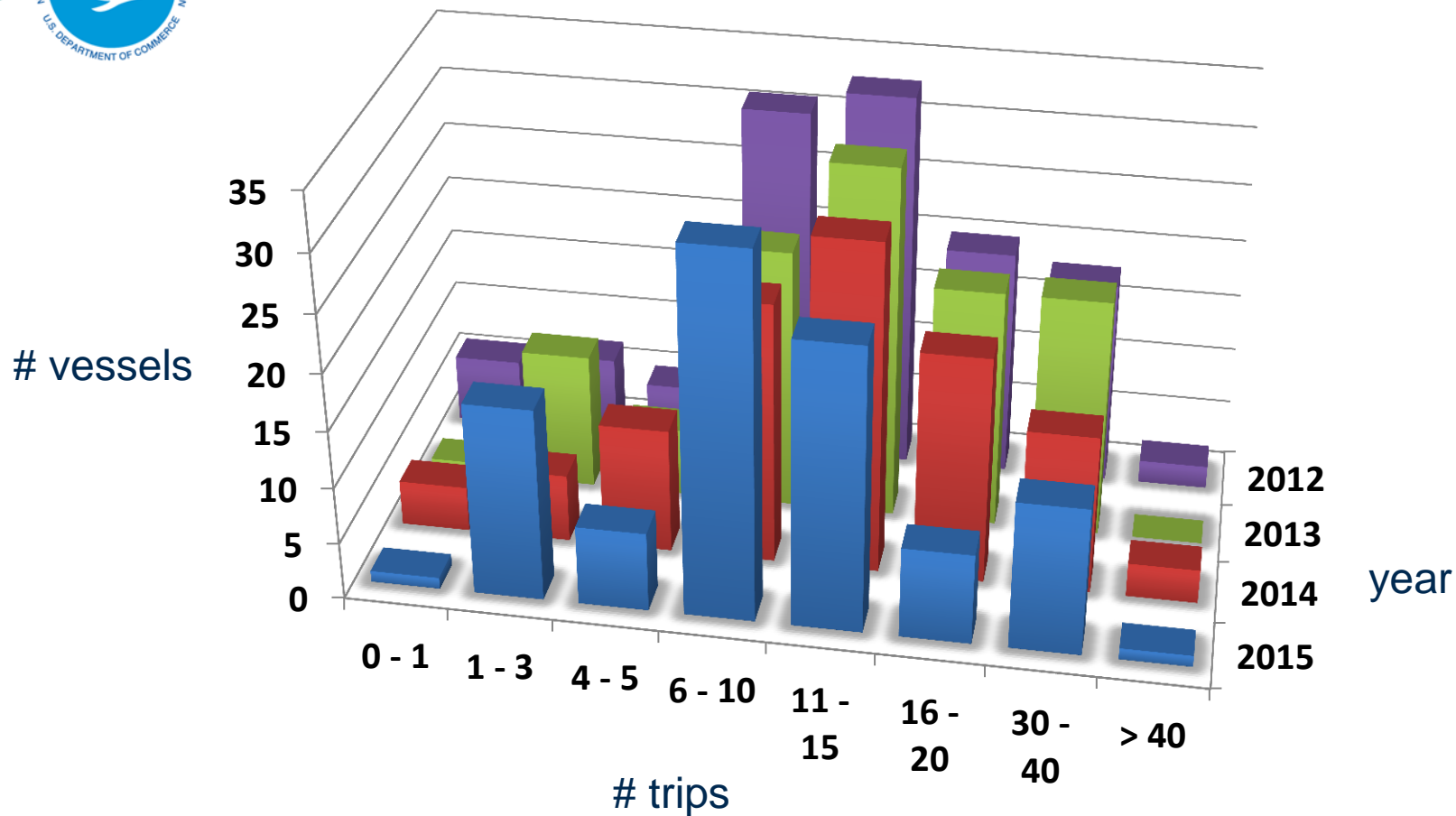


*The decline in the number of trips in 2015 is greater than the previous trend. Actual 2015 is 17% less than the 2015 estimate based on previous trend.*

Source: Logbook Data;



## Annual PLL Trips, # per Vessel

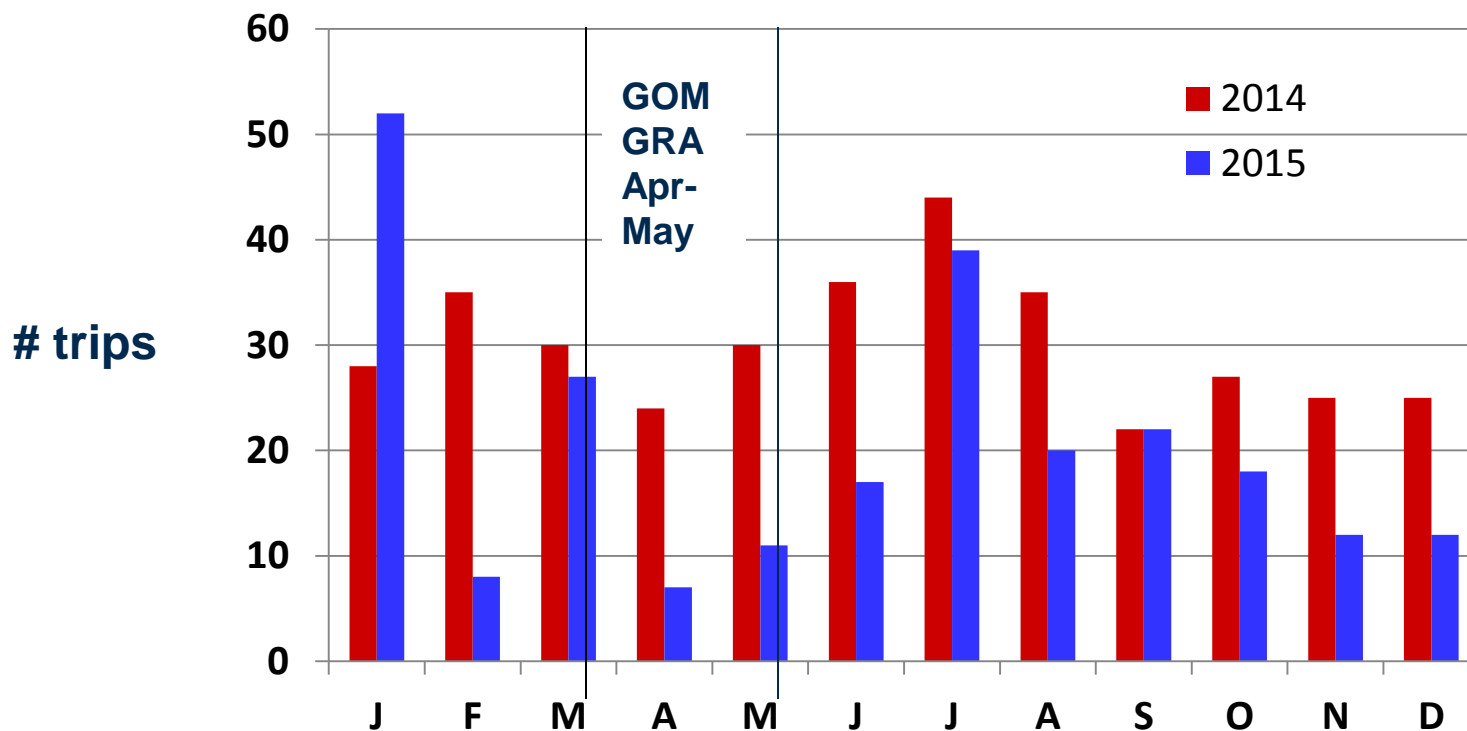


Source: Logbook Data

*Fewer trips were taken in 2015 by most vessels*



## PLL Trips in Gulf of Mexico, 2014, 2015

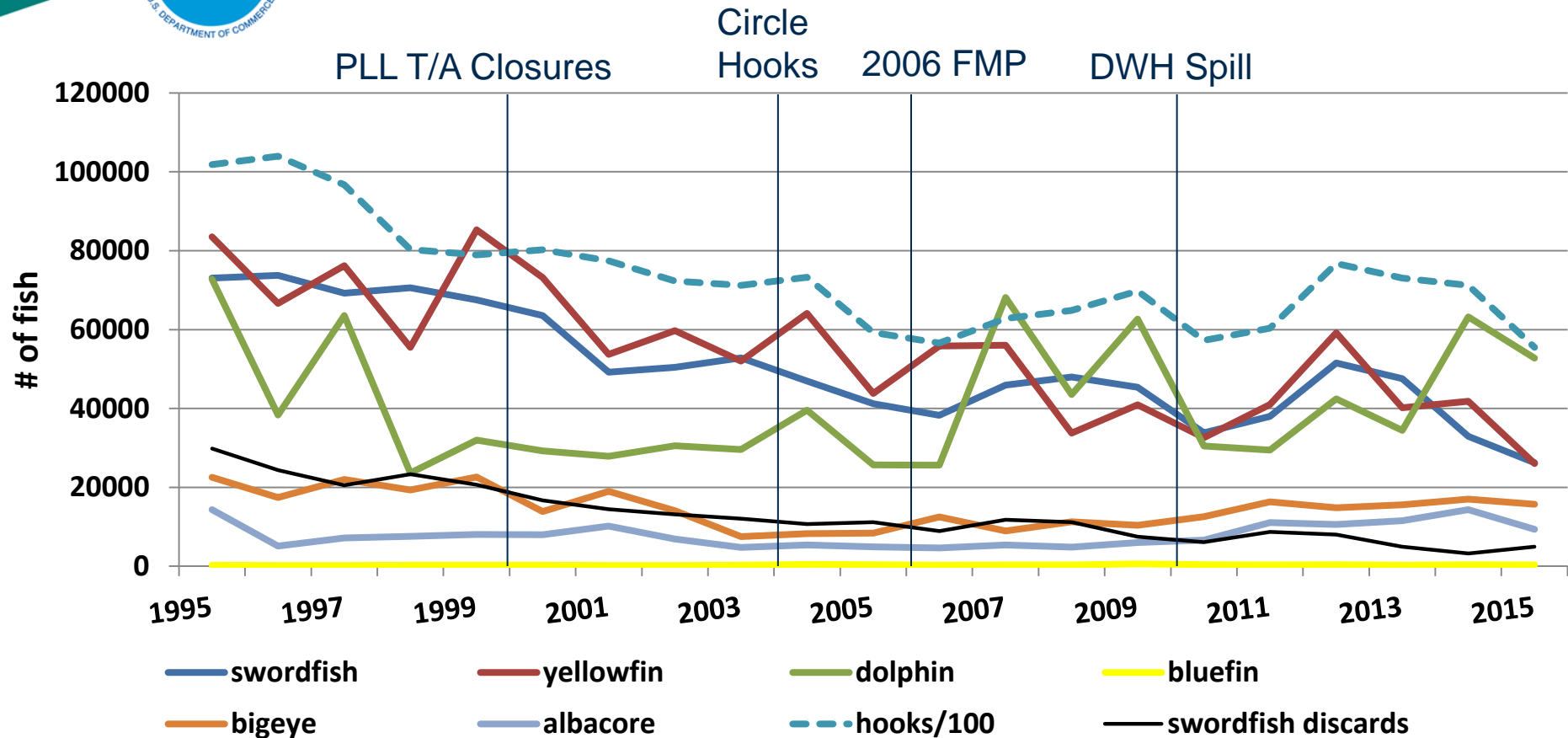


*The number of trips in the GOM in 2015 was less during all months except Jan.*





## Landings of Target Species and BFT 1995 to 2015

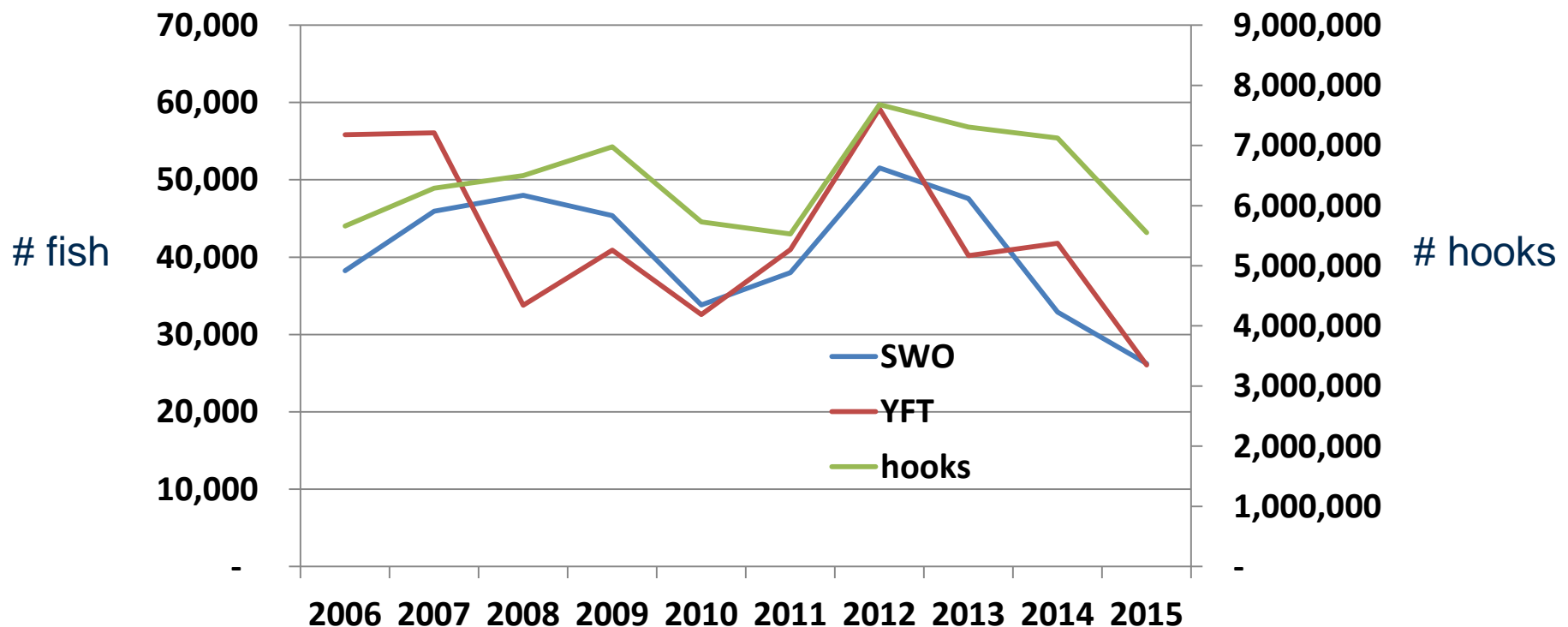


Source: Logbook Data

*Trend in landings is unique for each species*

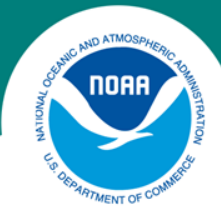


## Swordfish and Yellowfin tuna landings and hooks 2006 to 2015

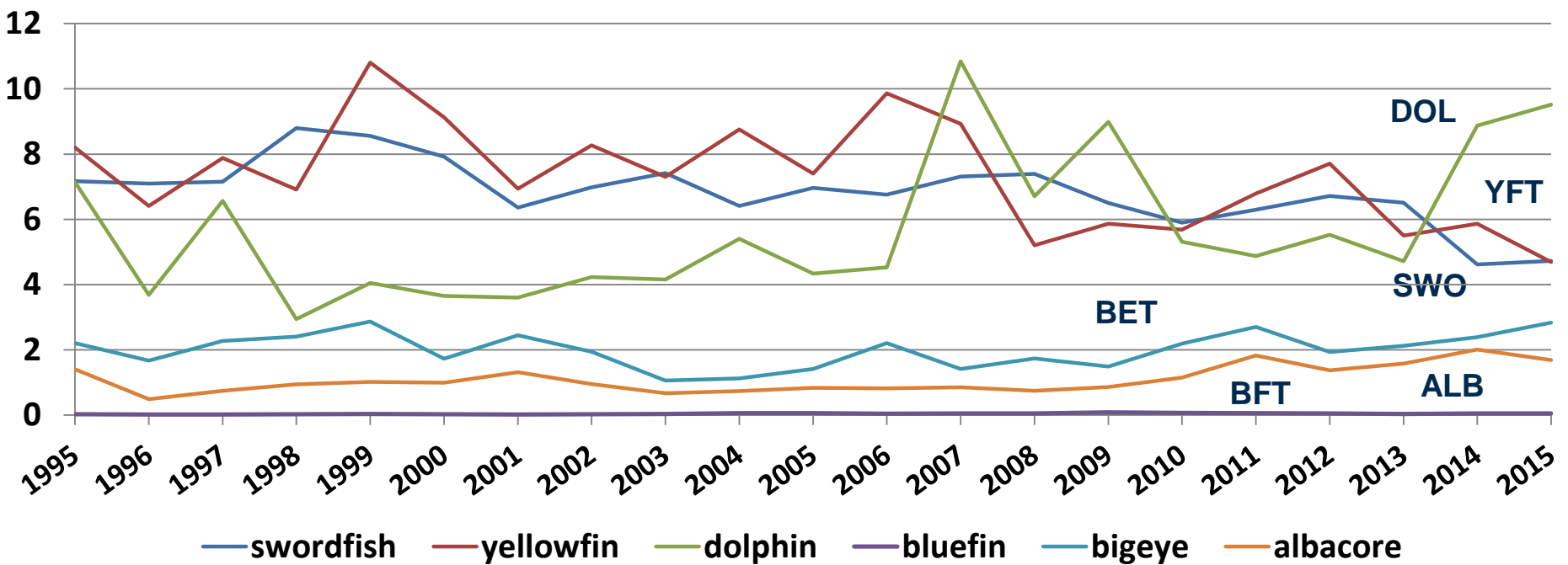


*Swordfish and yellowfin tuna landings  
generally track numbers of hooks fished*

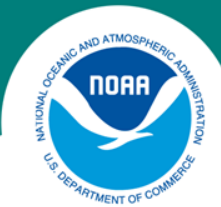
Source: Logbook Data



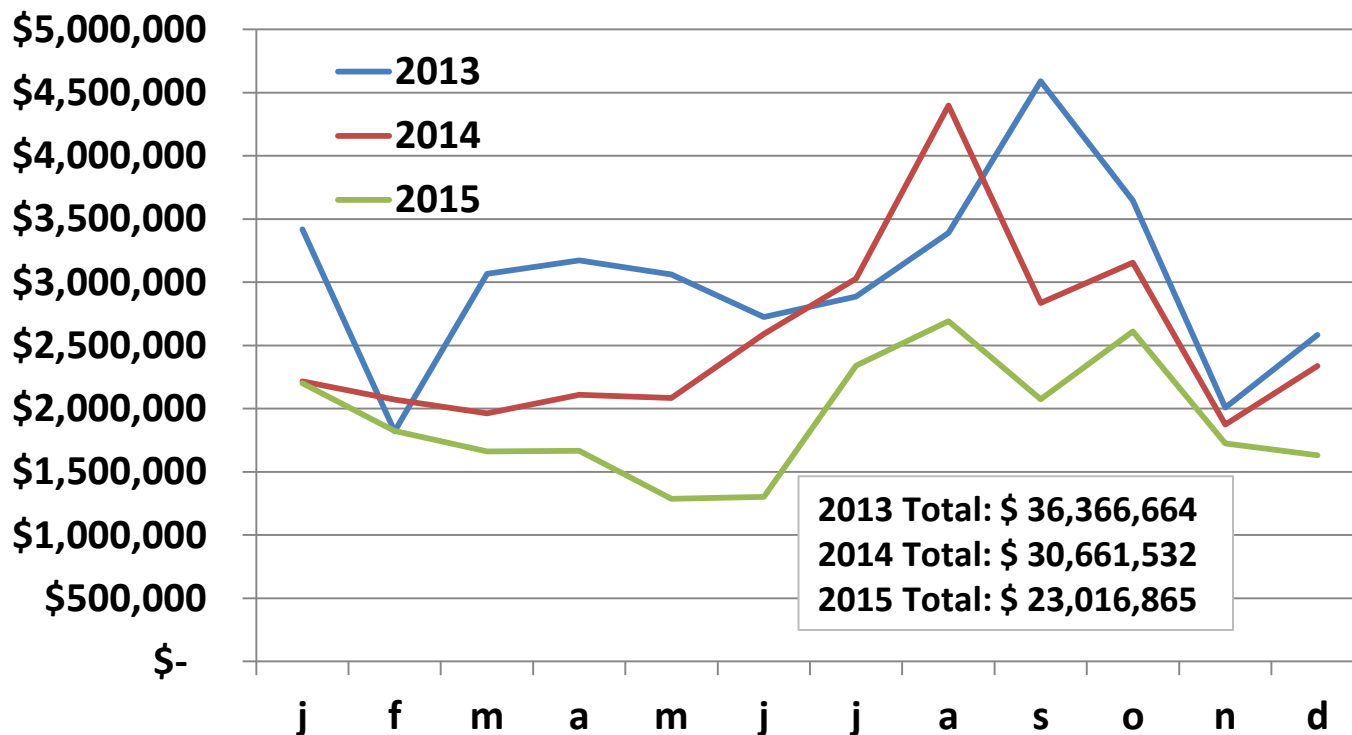
## Catch Per Unit Effort 1995 – 2015 # fish landed per 1,000 hooks set



*CPUE trends are unique for each species*



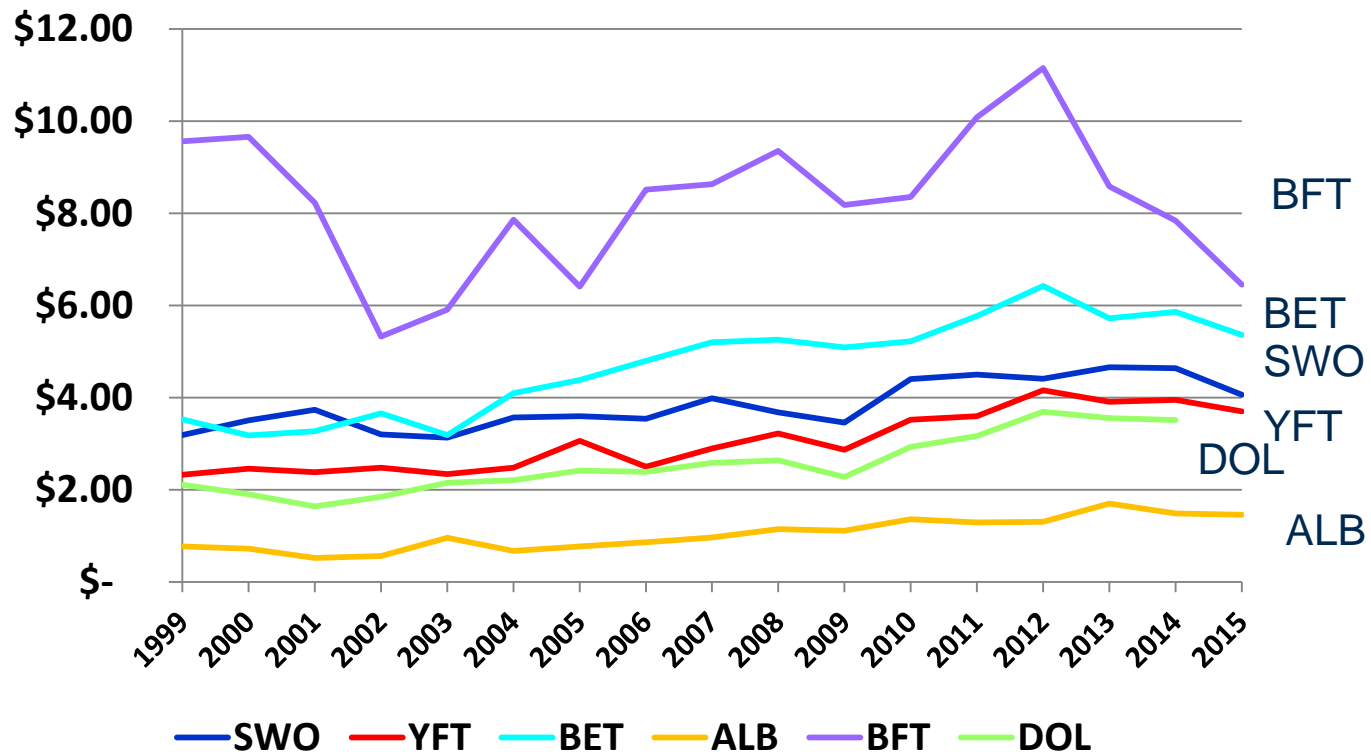
## PLL Revenue by Month 2013 - 2015



*2013 revenue was highest in all months except Jul and Aug 2014; and higher than all of 2015.*



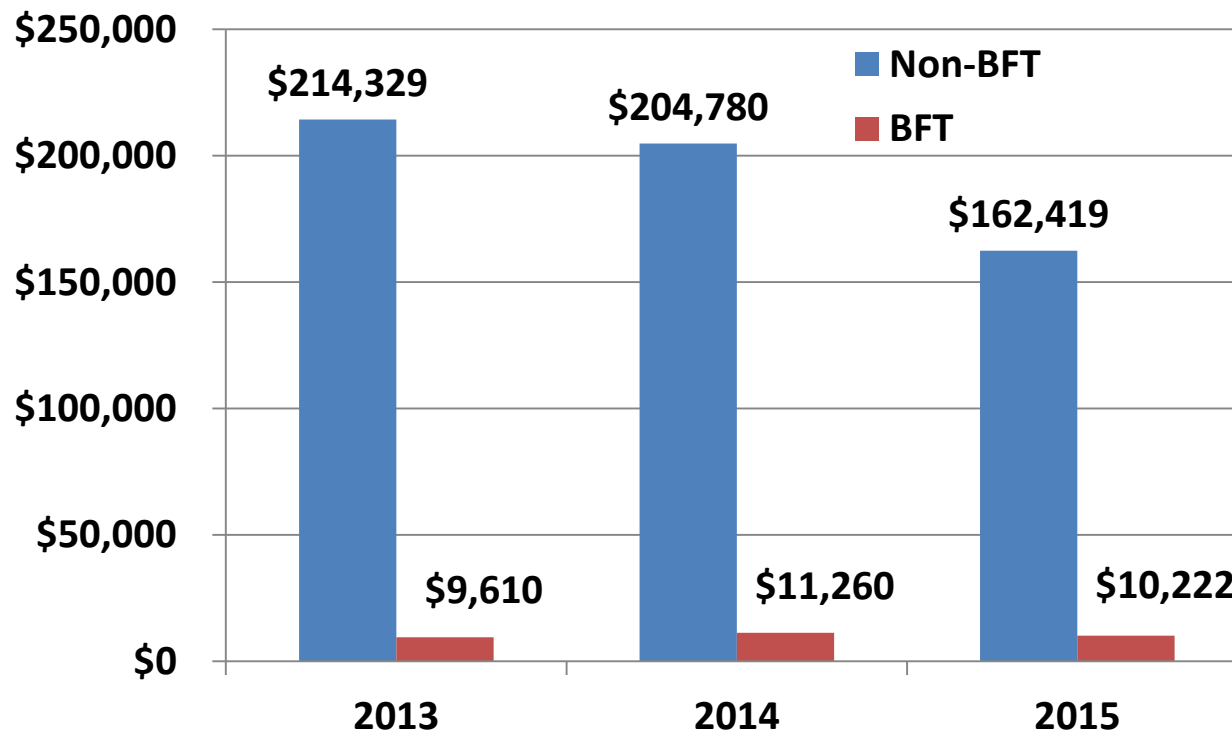
## Ex-Vessel price per pound (dressed weight)



*Slight upward trend in prices, with some recent declines*



## Revenue per Vessel 2013 - 2015

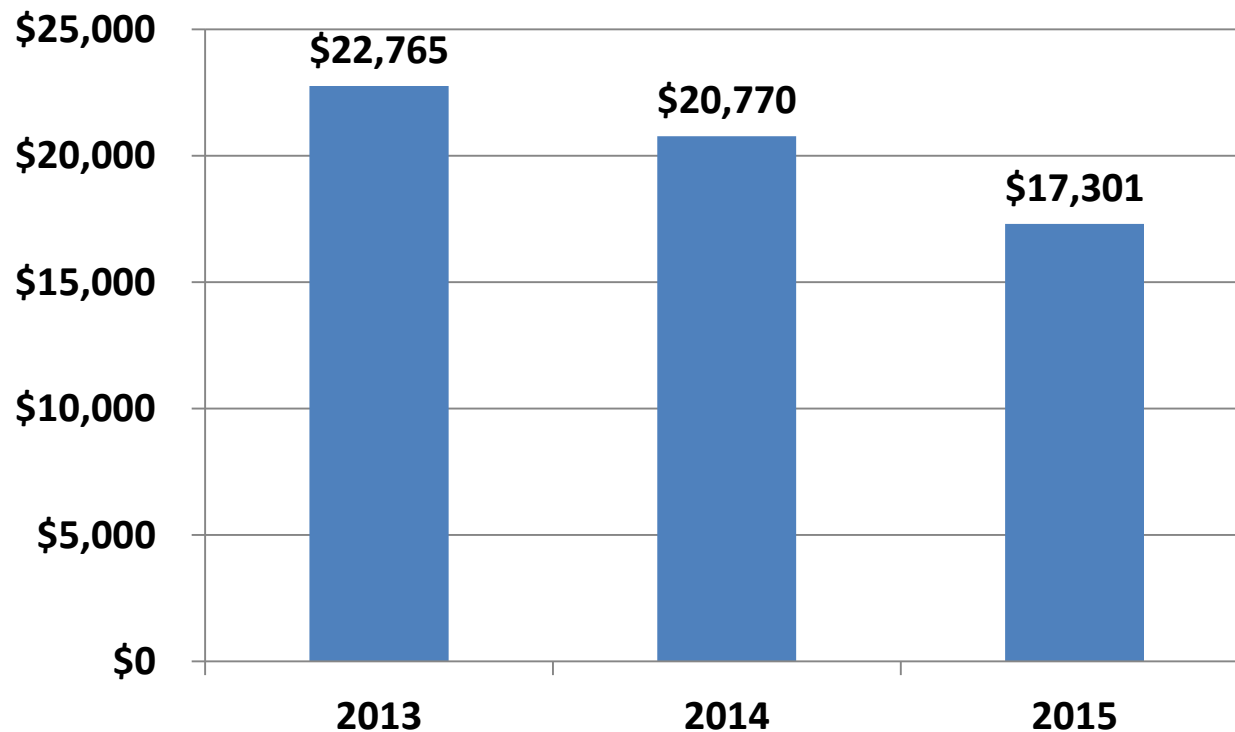


Source: eDealer Data

*Recent decline in revenue per vessel*



## Revenue per trip 2013 – 2015 (not including BFT)



Source: eDealer Data

*Recent decline in revenue per trip*



## **Possible Reasons for Recent Trends in Effort and Target Species Value**

- Imports of target species
- Participation in the mahi fishery
- Lack of yellowfin tuna availability in Gulf of Mexico
- Other factors (uncertainty in the fishery?)
- Lack of new entrants to the fishery & aging of the fleet
- Vessels not fishing and/or being sold





## **Some suggestions for regulatory changes from the IAC and others**

### ➤ **IBQ Related:**

- Trip level accountability – change to quarterly or annual
- Allow carry-forward of IBQ – individually or fleet-level
- For trips starting in one year and ending in the next, account for bluefin in the year the trip starts
- Reallocate quota annually based on active vessels during the previous year to maximize quota allocated to active participants
- Allow use of Atlantic IBQ (ATL) in the Gulf of Mexico during the months when bluefin are not present

### ➤ **By gear:**

- Allow “strong” hooks in GOM when BFT are not present
- Allow cut bait in the mahi fishery with PLL permits
- Eliminate demersal/pelagic species limits given EM in place now

### ➤ **Permitting:**

- Eliminate swordfish limited access permit upgrade restrictions



## **Some suggestions for regulatory changes from the IAC and others con't**

- Research
  - Pursue PLL time/area closure EFP research
  - Pursue Slope Sea cooperative research on bluefin tuna spawning
- Retention Limits
  - Increase SWO General Commercial handgear limits to 15 fish/trip for offshore trips with VMS
  - Increase SWO General Commercial handgear limits to 1-2 fish in Special Management Area
  - Eliminate SWO retention limits for incidental permits
- Others?



## **3-year Review of IBQ Catch Share Program**

- Data reflecting the fishery under Amendment 7: 2015 – 2017  
Scope: compare fishery pre- A7 to A7 fishery
- Variety of metrics as specified by NMFS guidance for catch share programs
- Target dates:  
Preliminary info: spring 2018 HMS AP meeting  
Draft document: fall 2018 HMS AP meeting



**Questions?**